luminous intensity almost attains the geometrical value of 10% of 4π; with 0.45% resolution, it amounts to 2%. The resolution with an open exit diaphragm and a 4-mm source is 1%. The decrease in luminous intensity observed when the resolution is increased is related to the fact that the electrons are deflected in their trajectory by the stray field of the turns when they pass near the sections. The deflection of the trajectory can be partially compensated by switching in the second coil. This was confirmed in the case of a 4-mm source and a 5-mm diaphragm, with the second coil connected in series: the luminous intensity increased 1.5-fold and the resolution rose to 0.30%. The paper was presented at the 12th Annual Conference on Nuclear Spectroscopy held in Leningrad from January 26 to February 2, 1962. There are 4 figures and 1 table.

ASSOCIATION: Institut teoreticheskoy i eksperimental'noy fiziki AN SSSR (Institute of Theoretical and Experimental Physics AS USSR)

from the equation p(oe cm) = 0.2 φni (A), where p is the momentum of electrons to be focused, i the current intensity, and n the number of turns. f = 400, φ = 0.8 were chosen as being optimum values. The coils are contained in an evacuated case carrying counter-turns on the outside to compensate parasitic fields which are set up when current flows through the coil. A vacuum lock in the middle of the case permits installation of sources between the two coils when they are operating independently. Next to the lock there are Wilson seals for the rods connected with exchangeable diaphragms. Adjustable scintillation counters with stilbene crystals, mounted perpendicular to the axis of the apparatus on separate flanges, serve as detectors. The coils are supplied from two current stabilizers controlled by d-c tube amplifiers. The power supply system makes it possible to maintain a stabilized current of 3 - 70 a for continuous operation at 80 v, or 160 v with the two coils connected in series. Each of the earth's magnetic field components is compensated to 1/50 by 3 threefold coils, connected in series, which are fed by a stabilizer made up of transistors. Debugging the apparatus is very simple; it comes down to checking that the components are accurately made and correctly assembled. With a 4-mm source and a 5-mm diaphragm, one section of the coil has a resolution of 0.45%. With an open diaphragm the

44284
S/048/62/026/012/003/016
B117/B186

AUTHORS: Tret'yakov, Ye. F., Kondrat'yev, L. N., Grishuk, G. I., Novikova, G. I., and Gol'din, L. L.

TITLE: A double, air-core β-spectrometer having a toroidal field

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Seriya fizicheskaya, v. 26, no. 12, 1962, 1470-1474

TEXT: A β-spectrometer for investigating modes of decay using a coincidence method is described. Its principle parts are two toroidal coils, each weighing 400 kg, placed one above the other and divided into 4 sections connected in parallel for cooling purposes. For each coil the distance between source and detector is 800 mm. Each coil consists of 600 insulated turns made of 0.7 mm stamped copper, which are assembled in 60 packages. They are symmetrical with respect to the median plane of the coil, connected in series, reinforced and cooled in the middle by 2 mm sheet brass provided with a water-cooled pipe. The dimensions and the resolution of the apparatus are determined by the distance f between the source (detector) and the median plane of the coil, and by the coefficient κ

Card 1/3

83576

Investigation of the Polarization of Internal Conversion Electrons Following the β^--Decay of Heavy Elements

S/056/60/038/005/009/050
B006/B070

are: $\langle \vec{\sigma} \rangle_{1/2} = -0.334\ \vec{v}/c$, $\langle \vec{\sigma} \rangle_{3/2} = (-0.334 + +0.200)\vec{v}/c$. $\langle \vec{\sigma} \rangle_{5/2} = 0.200\ \vec{v}/c$. Hg^{233}: The polarization was experimentally found to be given by $\langle \vec{\sigma} \rangle = (-0.32 \pm 0.09)\ \vec{v}/c$ for an average value of $v/c = 0.55$. For the different possible spins, the calculations give: $\langle \vec{\sigma} \rangle_{\pm 1/2} = 0.495\ \vec{v}/c$, $\langle \vec{\sigma} \rangle_{\pm 3/2} = (0.495 + -0.297)\ \vec{v}/c$, $\langle \vec{\sigma} \rangle_{\pm 5/2} = -0.297\ \vec{v}/c$.

Re^{186}: The decay is analogous to that of Tm^{170}. No numerical data are given. The authors thank Academician A. I. Alikhanov for his interest, B. V. Geshkenbeyn for discussions, and V. N. Markizov for his help. B. S. Dzhelepov and L. K. Peker are mentioned. There are 3 figures and 8 references: 7 Soviet and 1 US.

SUBMITTED: November 23, 1959

Card 3/3

83576

Investigation of the Polarization of Internal Conversion Electrons Following the β^--Decay of Heavy Elements

S/056/60/038/005/009/050
B006/B070

The results are individually discussed for the various isotopes. The conversion electrons were found to be polarized in the direction of the emitted β-particles for Tm^{170} and Re^{186}, and in the opposite direction for Hg^{203} and Pa^{233}. The results obtained are compared in part with those of other authors. Tm^{170}: $2S\langle\sigma\rangle = 0.19 \pm 0.03$, and with a correction for the finite thickness of the scatterer according to Alikhanov, Lyubimov, and G. P. Yeliseyev: $(2S\langle\sigma\rangle)_0 = 0.22 \pm 0.03$. The polarization of the conversion electrons yielded $\langle\vec{\sigma}\rangle_{exp} = (0.49 \pm 0.06)\vec{v}/c$, the average value of v/c for the β-particles recorded being 0.78. The results are compared with the theory of Geshkenbeyn, which gives $\langle\vec{\sigma}\rangle_{theor} = +0.488\ \vec{v}/c$. Pa^{233}: The following values were obtained for an asymmetry factor of scattering $R = 1.10 \pm 0.02$, when corrections were made for the finite thickness of the scatterer ($0.45\ mg/cm^2$) and for the admixture of cascade transitions: $\langle\vec{\sigma}\rangle = (-0.048 \pm 0.14)\ \vec{v}/c$ for an average value of $v/c = 0.56$. For the possible spin values in the ground state of Pa^{233}, the theoretical results

Card 2/3

83576

S/056/60/038/005/002/050
B006/B070

24.6520

AUTHORS: Vishnevskiy, M. Ye., Lyubimov, V. A., Tret'yakov, Ye. F., Grishuk, G. I.

TITLE: Investigation of the Polarization of Internal Conversion Electrons Following the β^--Decay of Heavy Elements 19

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1960, Vol. 38, No. 5, pp. 1424-1429

TEXT: The polarization of internal conversion electrons in transitions following β^- decays was predicted by A. I. Alikhanov and V. A. Lyubimov, and experimentally discovered by Lyubimov and Vishnevskiy. The theory of this effect was developed by V. B. Berestetskiy, A. P. Rudik, and B. V. Geshkenbeyn. The results of the present work were communicated to the International Conference on the Physics of High Energies (Kiyev, July 1959). The authors investigated the polarization of conversion electrons for transitions following the β^- decay of Tm^{170}, Re^{186}, Hg^{203}, and Pa^{233}. The apparatus they used is schematically shown in Fig. 1. The arrangement and the method of the experiments are briefly discussed in the introduction.

Card 1/3

The Investigation of the Lower Exited Levels of U^{235} 56-34-4-4/60
on the Basis of the Electrons of the Internal Conversion

greater detail. From the level V (172,6 keV) some weak conversion lines start. This level seems to have the spin 7/2. Finally a short report is given on level VI with the energy 234 keV. The authors also looked for the electrons of an isomeric transition, but without success. The Pu^{240}-admixture in the investigated samples allowed also the investigation of the conversion electrons emitted from its daughter-substance U^{236}. The results of this work show without doubt that the levels 0,I,II,III and IV of U^{235} belong to the rotation band with K = 1/2. The investigation of the α-spectrum of Pu^{239} speaks for the existence of a whole series of higher excited levels of U^{235}, but the electromagnetic transitions between these levels cannot be observed. At the end the authors thank L.N.Kondrat'yev, I.I.Agapkin and G.Chernov for their assistance in the measurements, and L.A.Sliv for the information on the internal conversion coefficients on the L-shell. There are 4 figures, 2 tables, and 13 references, 4 of which are Soviet.

SUBMITTED: November 15, 1957

Card 3/3

1 Alpha particles--Decay 2. Uranium--Production 3. Beta particles--Detection

range from 0 - 105 keV. Three different diagrams illustrate the ranges of the conversion spectrum for 0 - 35 keV, 35 - 52 keV, 52 - 105 keV. The energies of the electrons and the intensities of the conversion lines are compiled in a table. First the authors report on the levels I and II (13,0 and 51,7 keV). These two levels I and II are to be regarded as the first excited levels of the rotation band with $K = 1/2$. According to this interpretation the levels 0, I and II must possess the spins 1/2, 3/2 and 5/2 as well as the same parity. Almost all conversion lines which belong to the transitions II-0, II - I and I - 0 clearly show up in the spectrum. The authors also determined the multipole properties of these γ-transitions. The level 83,8 keV is the third excited rotation level of the band with $K = 1/2$. On this occasion the spin must be equal to 7/2 and the parity must agree with the parity of the remaining levels of the same band. The authors found only one transition starting from this level, the transition III - I with the energy 70,8 ± 0,2 keV. Remarkable is also the absence of the transition III - 0. From the level IV (149,7 keV) transitions start, which is discussed in

AUTHORS: Tret'yakov, Ye. F., Grishuk, G. I., Gol'din, L. L. 56-34-4-4/60

TITLE: The Investigation of the Lower Excited Levels of U^{235} on the Basis of the Electrons of the Internal Conversion (Izucheniye nizhnikh vozbuzhdennykh urovney U^{235} po elektronam vnutrenney konversii)

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1958, Vol. 34, Nr 4, pp. 811 - 819 (USSR)

ABSTRACT: This work investigates the electrons of the internal conversion which are emitted from U^{235}-nuclei subsequent to the α-decay of Pu^{239}-nuclei. In the introduction a short report is given on previous papers dealing with the same subject. These internal conversion electrons were examined by a large iron-free β-spectrometer with a toroidal magnetic field. The first paragraph reports very shortly on the experimental technique. The authors investigated the conversion spectrum of the U^{235} up to electron energies of 350 keV, but conversion lines with an energy which considerably surmounts the background were found only in the

Card 1/3

A Toroidal Beta-spectrometer for Studying [illegible] Accompanying Alpha-decay.

The electrons are detected by means of [illegible] 2 mm thick and mounted on a photomultiplier [illegible] 20 keV electrons a CsI(Tl) crystal [illegible] crystal. A special "fast-slow" [illegible] is used to count the number of alpha-[illegible]. [illegible] were carried out using the [illegible] 43.5 keV gamma-line of Pu^{238} [illegible] 26.3 keV. Fig. 7 shows the conversion [illegible]. Half width at half height is [illegible]. Fig. [illegible] shows the conversion lines L_{II} and L_{III} of the [illegible] keV gamma-[illegible] from Pu^{238} (transition from the [illegible] keV [illegible] to the 43.5 kev level). The time taken to [illegible] was [illegible] hours. G.K. Papkevich assisted in the [illegible] of the apparatus. There are 9 figures and 4 [illegible] [illegible] Slatt.

ASSOCIATION: Ac. S , USSR (AN SSSR)

SUBMITTED: May 29, 1957.

AVAILABLE: Library of Congress

Card 2/2

Goldin, G.I.

SOV-6-4/36

AUTHORS: Tretyakov, Ye.F., Goldin, L.L., and Grishin, G. I.

TITLE: A Toroidal Beta-spectrometer for Studying the Conversion Radiation Accompanying Alpha-decay (Toroidal'nyy Beta-spektrometr dlya issledovaniya konversionnogo izlucheniya soprovozhdayushchego al'fa-raspada)

PERIODICAL: Pribory i Tekhnika Eksperimenta, 1957, No. 6, pp. 22 - 26 (USSR).

ABSTRACT: An ironless spectrometer of alpha-coincidences with spatial focussing of electrons is described. The instrument has a resolution of about 1% and an illumination of 7% (electrons). It can be used to study conversion lines with intensities of the order of 10^{-4} electrons per alpha-decay. The construction of the spectrometer is illustrated in Fig. 3. The main part of the spectrometer is a toroidal coil, which produces the focussing field when a current passes through it. It consists of 800 copper turns which are water-cooled. Currents up to 30 A can be passed through the coil and electrons with energies up to 0.6 MeV can be focussed. The coil is placed in a copper cylinder which is evacuated to a pressure of 2×10^{-5} mm Hg. Close to the source is placed a photo-multiplier 14, which records alpha-particles. This photo-multiplier can be placed either below or above the coil.

Card 1/2

GRISHPUNT, Ye.M., polkovnik meditsinskoy sluzhby, kand.med.nauk

Some problems of military medical expert testimony in tuberculosis of the lungs. Voen.-med.zhur. no.3:37-40 Mr '61. (MIRA 14:7)
(TUBERCULOSIS) (MEDICINE, MILITARY)
(DISABILITY EVALUATION)

RIKMAN, V. A.; REZNIK, L. A.; GRISHPUN, L. V.

Turntable for transporting mine cars from two cages to the dumper and back. Gor. zhur. no.10:76 O '62.
(MIRA 15:10)

(Mine railroads--Cars)

GRIGHTAN, I. P.

"Effect of the Granulometric Composition of Apatite Concentrate on the Process of Manufacturing Superphosphates." Sub 11 May 41, Sci Inst of Fertilizers and Insectofungicides

Dissertations presented for science and engineering degrees in Moscow during 1951.

SO: Sum. No. 480, 9 May 55

BRISHPAK, N. E.

"Effect of a Different Levels of Feeding for Pregnant Karakul Sheep on the Quality of Their Offspring and of the Astrakhan." Cand Agr Sci, Kharkov Zootechnical Inst. Min Higher Education Kharkov, 1955. (KL, No 11, Mar 57)

SO: Sum No. 670, 29 Sep 57 - Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (15)

GORB, T. V., Prof. ; GRISHPAK, V. F.

Ukraine - Karakul Sheep

Feeding and maintenance of karakul ewes in the Ukraine. Kar. i zver. 6, No.1, 1953.

Monthly List of Russian Accessions, Library of Congress, June 1953. Unclassified.

SHPEYER, V.M., kand.tekhn.nauk; BARON, F.Ya., kand.tekhn.nauk; GRISHNEVA, M.D., mladshiy nauchnyy sotrudnik; SOLOV'YEVA, M.S., mladshiy nauchnyy sotrudnik; PETROVA, V.V., red.izd-va; OSENKO, L.M., tekhn.red.

[Information for organizing mass construction of settlement buildings of few stories in economic regions] Ukazaniia po organizatsii massovogo zhilishchnogo maloetazhnogo stroitel'stva poselkov v ekonomicheskikh raionakh. Moskva, Gos.izd-vo lit-ry po stroit., arkhit. i stroit.materialam, 1959. 63 p. (MIRA 13:1)

1. Akademiya stroitel'stva i arkhitektury SSSR. Institut organizatsii, mekhanizatsii i tekhnicheskoy pomoshchi stroitel'stvu. 2. Sotrudniki sektora organizatsii zhilishchnogo stroitel'stva Nauchno-issledovatel'skogo instituta organizatsii, mekhanizatsii i tekhnicheskoy pomoshchi stroitel'stvu (NIIOMTP) (for Shpeyer, Baron, Greshneva, Solov'yeva).

(Assembly-line methods) (Construction industry)

BRUK, B.I.(Leningrad); GRISHMANOVSKAYA, R.N.(Leningrad); MARKOV, V.G.(Leningrad)

Interaction between dissimilar steels in liquid tin. Izv. AN SSSR.Otd. tekh.nauk. Met. i topl. no.5:212-219 S-O '62. (MIRA 15:10)
(Steel, Structural--Metallography)
(Tinning)

BUBNOV, V.A.; GRISHMANOVSKAYA, K.I.

Exact solutions of the problems of a nonisothermal boundary layer in a noncompressible fluid. Trudy LPI no.230:77-83 '64. (MIRA 17:6)

FADDEYEVA, V.N.; TERENT'YEV, N.M.; FOK, V.A., akademik, redaktor; GRISHMANOVSKAYA, K.I., redaktor.

[Tables of values of the function $w(z)=e^{-z^2}\left(1+\frac{2i}{\sqrt{\pi}}\int_0^z e^{t^2}dt\right)$ of a complex argument] Tablitsy znachenii funktsii $w(z)=e^{-z^2}\left(1\frac{2i}{\sqrt{\pi}}\int_0^z e^{t^2}dt\right)$ ot kompleksnogo argumenta. Pod red. V.A.Foka. Moskva, Gos. izd-vo tekhniko-teoret. lit-ry, 1954. 268 p. (Matematicheskie tablitsy, no.3) (MLRA 7:8)

(Functions--Tables, etc.)

GRISHMANOV, I.A.

Beach the level of the growing demands of the national economy. Stroi. mat. 9 no.8:1-5 Ag'63. (MIRA 17:5)

1. Predsedatel' Gosudarstvennogo komiteta po promyshlennosti stroitel'nykh materialov pri Gosstroye SSSR i Ministr SSSR.

GRISHMANOV, I.A.

A powerful production base for construction is the basis of successful operation. Bet. i zhel.-bet. no.4:146 Ap '61. (MIRA 14:6)

1. Predsedatel' Gosstroya SSSR.
(Construction industry)

ALABYAN, K.S.[deceased]; BLOKHIN, P.N.; BOTVINKO, M.Ye.; DEVYATKOV, G.V.; DMITRIYEV, A.D.; VERSHOV, P.N.; ZAYTSEV, A.G.; KIBIREV, S.F.; KOSTYUKOVSKIY, M.G.; KUZNETSOV, B.T.; L'VOV, G.N.; MOGIL'NYY, A.I.; ORLOV, G.M., OVSYANNIKOV, K.L.; PROMYSLOV, V.F.; SMIRNOV, N.N.; SKACHKOV, I.A.; SOLOFNENKO, N.A.; SUSNIKOV, A.A.; CHAGIN, D.A.; KUCHERENKO, V.A., obshchiy red.; GRISHMANOV, I.A., obshchiy red.; SVETLICHNYY, V.I., obshchiy red.; RUBANENKO, B.R., obshchiy red.; BARSKOV, I.M., red.; UDOD, V.Ya., red.izd-va; YUDINA, L.A., red.izd-va; GOLOVKINA, A.A., tekhn. red.

[Building practices in foreign countries; Northern Europe and German Federal Republic] Opyt stroitel'stva za rubezhom; v stranakh Severnoi Evropy i FRG. Po materialam otchetov delegatsii sovetskikh spetsialistov-stroitelei. Moskva, Gos.izd-vo lit-ry po stroit., arkhit. i stroit.materialam, 1959. 598 p. (MIRA 12:12)

1. Predsedatel' Gosstroya SSSR (for Kucherenko). 2. Zamestitel' predsedatelya Gosstroya SSSR (for Svetlichnyy).
(Europe, Western--Building)

ZASYAD'KO, A.F.; KUCHERENKO, V.A.; PAVLENKO, A.S.; GRISHMANOV, I.A.; FROLOV, V.S.; SHASHKOV, Z.A.; YEFREMOV, M.T.; SMIRNOV, M.S.; CHIZHOV, D.G.; NOVIKOV, I.T.; NOSOV, R.P.; ASKOCHENSKIY, A.N.; NEKRASOV, A.M.; LAVRENENKO, K.D.; TARASOV, N.Ya.; GABDANK, K.A.; LEVIN, I.A.; GINZBURG, S.Z.; ALEKSANDROV, A.P.; KOMZIN, I.V.; OZEROV, I.N.; SOSNIN, L.A.; BELYAKOV, A.A.; NAYMUSHIN, I.I.; INYUSHIN, M.V.; ACHKASOV, D.I.; RUSSO, G.A.; DROBYSHEV, A.I.; PLATONOV, N.A.; ZHIMERIN, D.G.; PROMYSLOV, V.F.; ERISTOV, V.S.; SAPOZHNIKOV, F.V.; KASATKIN, M.V.; ALEKSANDROV, M.Ya.; KOTILEVSKIY, D.G.

Fedor Georgievich Loginov; obituary. Elek.sta. 29 no.8:1-2 Ag '58. (MIRA 11:11)

(Loginov, Fedor Georgievich, 1900-1958)

GRIGHMAN, I.D.; KRICHEVSKIY, S.B.

Centralized control and regulation of molding equipment. Kauch. i rez. 19 no.3:49-53 Mr '60. (MIRA 13:6)

1. Zavod "Krasnyy treugol'nik".
(Leningrad--Rubber industry--Equipment and supplies)
(Molding machines)

ACC NR: AT7001735

920C. Further rolling to a determined plate thickness was done on the three-high 1700 mill with one or two heatings (1160—1170C), depending on the plate thickness. The finish temperature for plates 8—10 mm thick was 900—930C and for 15 mm plates, 1000C and higher. Plates 12—18 mm thick were cut in two parts and after heating were rolled to a determined thickness. The rolled plates had a tensile strength of 100 kg/mm^2, a yield strength of 58 kg/mm^2, an elongation of 18%, a reduction of area of 20%, and a notch toughness of 5 kgm/cm^2. After rolling, plates 15 or 8—10 mm thick were heated in a continuous furnace for 10 min to 1100 or 1120-1130C, respectively, and then cooled to 750-800C under a water shower and then in air. The heat-treated sheets were then subjected to alkaline and acid pickling followed by blanching. Orig. art. has: 4 figures and 5 tables.

SUB CODE: 13,11/ SUBM DATE: none

Card 2/2

ACC NR: AT7001735 SOURCE CODE: UR/2776/66/000/044/0117/0123

AUTHOR: Grishlov, A. I.; Kardonov, B. A.; Pravdin, A. V.; Tikhonov, A. S.

ORG: none

TITLE: Rolling of a plate from KhN67VMTYu alloy

SOURCE: Moscow. Tsentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii. Sbornik trudov, no. 44, 1966. Tekhnologicheskiye i teoreticheskiye voprosy prokatki (Technological and theoretical problems of rolling), 117-123

TOPIC TAGS: heat resistent alloy, metal rolling, mechanical property, nickel base alloy, plate, KhN67VMTYu nickel base alloy

ABSTRACT: A method of rolling plates 5—18 x 1000 x 2000 from KhN67VMTYU heat-resistant nickel-base alloy with high strength properties at 850—900C is described. Forged 560-kg slabs, 120—125 x 500 x 1000 mm, were preheated in a continuous furnace and rolled at 1180—950C from 120 to 25 mm on the 2200 mill and then from 25 to 8 mm on the 1700 mill. Rolling on the three-high 2200 mill was done with two heatings. After the first heating the slabs were reduced in 22-24 passes to 70-80 mm and after the second reheating they were reduced in 18-20 passes to 25—28 mm. The finish temperature was not lower than

Card 1/2

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R000616900009-6

GRISHKYAVICHYUS, P.

A unity strong as steel. Voen.vest. 41 no.10 11-12 O '61. (MIRA 15:2)

1. Sekretar' Vil'nyusskogo gorodskogo komiteta Kommunisticheskoy partii Litvy.
(Russia--Relations (General) with Lithuania)
(Lithuania--Relations (General) with Russia)

USSR/ Physical Chemistry - Photochemistry. Radiation chemistry. B-10
Theory of the photographic process

Abs Jour : Referat Zhur - Khimiya, No 4, 1957, 11308

a solution of $KMnO_4$, and anthraquinone exhibits no inhibiting properties As a result of the primary process of sensitizing anthrahydroquinone is formed. The authors consider that xanthene dyestuffs (eosin, acridine yellow etc.,) do not sensitize oxidation of II because they are incapable of undergoing dehydrogenation in the first step of sensitizing.

2/2

GRISHKUN, Ye. V.

B-10

USSR/ Physical Chemistry - Photochemistry. Radiation chemistry. Theory of the photographic process

Abs Jour : Referat Zhur - Khimiya, No 4, 1957, 11308

Author : Grishkun Ye. V., Borodin E.S.
Inst : Vilnus University
Title : Primary Process of Benzaldehyde Oxidation Sensitized with Methylene Blue and Anthraquinone

Orig Pub : Moaklo darbai, Vilniaus valst. univ. Mat., fiz. ir chem. mokslu ser.; Uch. zap. Vil'nyussk. un-ta, Ser. matem., fiz. i khim. n., 1956, 5, 79-89

Abstract : On a photochemical reaction (λ 590-760 mμ), sensitized with Methylene Blue (I), of benzaldehyde (II) oxidation with molecular oxygen, there is formed the leuco-base of the dye, I inhibites dark oxidation of II. The assumption is made that primary process of sensitizing consists in dehydrogenation of II molecule by excitated I molecule, as a result of which are formed the radicals C_6H_5C, which initiate the chains on oxidation of II. Inhibiting action of I, apparently, is due to interaction of I with reactive intermediate products of oxidation of II. Anthraquinone also sensitizes oxidation of II on irradiation with light passing through

1/2

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

Photooxidation of arsenite sensitized by methylene blue. R. V. Grishkun and Kh. Rakipova (State Univ., Tashkent). *J. Phys. Chem.* (U.S.S.R.) 19, 279-81 (1945); cf. preceding abstr.—Methylene blue B extra is bleached by alk. soln. of As_2O_3 in the dark, but the mixt. does not absorb O. The rate v of O absorption is proportional to the light intensity, if the concn. of methylene blue is 10^{-6}, and tends to a satn. for the concn. of 5×10^{-6} g./cc. The v has a max. at about 10^{-6} g./cc. of methylene blue and increases with the concn. of Na_2AsO_3 less than linearly. It is zero for the ratio $NaOH : As_2O_3 = 2$ and is high and independent of the ratio when the latter is 3.2 to 4.5. The kinetics of this reaction are very similar to those in the presence of eosin, although eosin is not bleached.

J. J. Bikerman

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

Photooxidation of arsenite sensitized by eosin. F. V. Grishkun and E. Gurevich (State Univ., Tashkent). *J. Phys. Chem.* (U.S.S.R.) 19, 275-8(1945); cf. *C.A.* 39, 4010[9].—The rate v of O absorption by solns. of As_2O_3 and eosin in NaOH has a max. at about 5×10^{-4} g. of eosin per cc., when the eosin concn. is varied between 10^{-5} and 10^{-3} g./cc. In the dark $v = 0$, and it is proportional to light intensity. When the ratio NaOH/As_2O_3 is 2, $v = 0$; it increases with this ratio and becomes independent of the ratio between the ratios 3.5 and 4. This shows that the substance oxidized is $HAsO_3^{--}$. Arsenite does not quench the fluorescence of eosin; KI, which does, lowers v, and the relative lowering of v increases with the concn. of KI more rapidly than does the quenching. The absence of proportionality between these two effects cannot be explained. J. J. Bikerman

COMMON ELEMENTS

MATERIALS INDEX

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

Photochemical sensitization by dyes and quenching of fluorescence in solutions. E. V. Shpol'skii and E. V. Goshkun. *J. Phys. Chem.* (U.S.S.R.) 19, 107-16(1945).

A discussion of the exptl. results (cf. preceding abstr.) is given from the point of view of Franck and Livingston. *C.A.* 35, 3174[8].

J. J. Bikerman

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

Oxidation of sodium sulfite, sensitized by eosin. E. V. Grishkun and E. V. Shpol'skii. *J. Phys. Chem.* (U.S.S.R.) 19, 97-106(1945). The rate v of absorption of O by an aq. soln. of Na_2SO_3, eosin, and in some expts. EtOH or mannitol, was detd. in the darkness and in ultraviolet. The v in ultraviolet is greater than in the dark and remains high for about 1 min. after the light has been turned off; this after-effect is stronger in the presence of EtOH. EtOH reduces v in ultraviolet more or less than in the dark according to whether its concn. is low (e.g., 0.005 mol./L.) or high (e.g., 0.05 mol./L.). The v in ultraviolet increases with the intensity, *I*, of radiation first rapidly and then slowly; in presence of EtOH v reaches a limit when *I* increases. The increase of v with the concn. of Na_2SO_3 (up to 0.6 mol./L.) is not linear, but becomes so in presence of EtOH. A max. of v is observed for the concn. of eosin of 10^{-4} to 10^{-5} g./cc. L. I. Bikerman

Determination of integral heat of solution II. N. A. Kolosovskii and E. V. Grishkun. *J. Gen. Chem.* (U. S. S. R.) 4, 1289-93(1934); cf. *C. A.* 27, 3390.—The method used previously was improved so that exptl. errors were reduced to 0.2-0.5%. Heats of soln. in kg.-cals per g.-mol. of solute were detd. for the following salts. For K_2CrO_4 at 20.96°, 30.15° and 38.37°, heat of soln. L_∞ = +1.70, −0.13 and −1.13; for $K_2Cr_2O_7$ at 20.80°, 30.38° and 39.07°, L_∞ = +22.40, +0.61 and −0.61; for K Na tartarate, at 21.87°, 25.70° and 29.19°, L_∞ = −13.00, −9.00 and −11.20; for $H_2C_2O_4$, at 18.14°, 24.36°, 31.17°, 36.36° and 42.18°, L_∞ = +19.00, +3.00, −0.93, −6.30 and −8.40; for succinic acid, at 12.90°, 13.15°, 22.50°, 31.68° and 41.40°, L_∞ = +50.40, +48.40, +14.00, −2.10 and −5.90. For di-K tartarate at 21.35°, 25.22°, 28.15°, 31.60°, 34.56°, 39.61°, 40.50° and 41.18°, heats of soln. are −0.601, −0.537, −0.557, −0.512, −0.561, −0.639, −0.782 and −0.804 kg.-cal. per g.-mol. H_2O.

S. I. Madorsky

Determination of integral heats of solution. N A Korosovskii and F V Grigorkun *J Gen Chem* (U S S R) 2, 900-10(1932) Heats of soln of NaCl at 30-40°, KNO_3 at 40.5°, NH_4Cl at 33.8° and $CO(NH_2)_2$ at 39.5° were detd exptly by measuring the heat of vaporizing a soln to dryness, and subtracting from this the heat of vaporization of H_2O The results, in large calories per mol, were −0 for NaCl, 5.57 for KNO_3, 4.37 for NH_4Cl and 5.80 for $CO(NH_2)_2$ These results agree closely with the values calcd by means of Kirchhof's equation However, the method is not sufficiently sensitive to show systematic deviations from this equation S L Madorsky

A I M S L A METALLURGICAL LITERATURE CLASSIFICATION

SMIRNOV, V.N.; GRISHKUN, Ye.V.; USYNINA, V.A.

Fermentation and respiration intensity of soils under forests and in plowlands. Pochvovedenie no.1:59-73 Ja '62.
(MIRA 17:1)

1. Povolzhskiy lesotekhnicheskiy institut imeni M. Gor'kogo.

GRISHKUN, G.I. (Ryazan')

Nerve structures in granulating tissues of skin wounds. Arkh.pat. no.3:53-60 '62. (MIRA 15:3)

1. Iz kafedry patologicheskoy anatomii (zav. - prof. V.K. Beletskiy) i kafedry obshchey khirurgii (zav. - doktor med.nauk V.I. Astrakhan) Ryazanskogo meditsinskogo instituta imeni I.P. Pavlova.
(SKIN--INNERVATION) (WOUNDS)

GRISHKUN, G. I. (Ryazan')

Case of miliary tuberculosis with marked tuberculoseptic thrombo angiitis. Arkh. pat. no.9:71-73 '61. (MIRA 15:6)

1. Iz kafedry obshchey khirurgii (zav. - prof. A. K. Shipov) Ryazanskogo meditsinskogo instituta i khirurgicheskogo otdeleniya Gorodskoy bol'nitsy No. 4 (glavnyy vrach N. I. Popov)

(TUBERCULOSIS) (BLOOD VESSELS--DISEASES)

TRISHKIN, I. I.

"The effect of certain therapeutic [illegible] on the secretion of [illegible]." Ryazan' Medical Inst [illegible] Academician I. P. Pavlov. Chair of General Surgery. Ryazan', 1956. (Dissertations for the Degree of Candidate in Medical Science)

SO: Knizhnaya Letopis', No. 16, 1956

ASEEVA, N.P.; GRISHKUN, G.I.; USHAKOVA, A.A., zaveduyushchaya; SHIROKOV, V.N., zasluzhennyy vrach RSFSR, glavnyy vrach; FAYERMAN, I.L., professor, zasluzhennyy deyatel' nauki, direktor.

Two cases of calcified hydatid cyst of rare location. Vest.rent.i rad. no.2:66-67 Mr-Ap '53. (MLRA 6:6)

1. Rentgenologicheskoye otdeleniye Ryazanskoy oblastnoy klinicheskoy bol'nitsy imeni N.A.Semashko (for Aseyeva, Grishkun, Ushakova). 2. Ryazanskaya oblastnaya klinicheskaya bol'nitsa imeni N.A.Semashko (for Shirokov). 3. Kafedra propedevticheskoy khirurgii Ryazanskogo meditsinskogo instituta imeni akademika I.P.Pavlova (for Aseyeva, Grishkun and Fayerman).
(Spleen--Hydatids) (Peritoneum--Hydatids)

ACC NR: AP6036712

decrease in plasticity characteristics and increase in strength characteristics occurs at 320°C for ingots cooled at the rate of 100°C/min and 100°C/hr, whereas at 400 and 440°C there no longer exists any appreciable relationship between properties of the ingot and the rate of its cooling from homogenization temperature. Further, the flowage rate of tubes during their pressworking increases with decrease in cooling rate. Corrosion tests, based on the weight loss of specimens following their 15-day immersion in a solution of 3% NaCl + 0.1% H_2O_2, revealed that only the tubes obtained from ingots cooled at the rate of 5 and 20°C/min displayed proneness to intercrystalline corrosion. During homogenizing the boundary excess phases $CuAl_2$ and S dissolve in the Al solid solution and this is accompanied by the decomposition of the supersaturated -- during crystallization -- solid solution of Mn in Al. Cooling from the homogenizing temperature is accompanied by the segregation of the dissolved phases in the form of platelets whose size decreases with increase in cooling rate of the homogenized ingots; evidently it is these changes in phase dispersity that account for the improvement in pressworkability, and the decrease in mechanical properties and increase in corrosion proneness with decrease in cooling rate of homogenized ingots. Orig. art. has: 4 figures.

SUB CODE: 13, 11, 20/ SUBM DATE: none/ ORIG REF: 005

Card 3/3

ACC NR: AP6036712

by pressworking the ingots heated to 360°C, with concomitant oscillographic and dynamometric measurements of flowage rate. Findings: The effect of cooling rate on the mechanical properties of the ingots decreases with increase in test temperature (Fig. 1). The sharpest

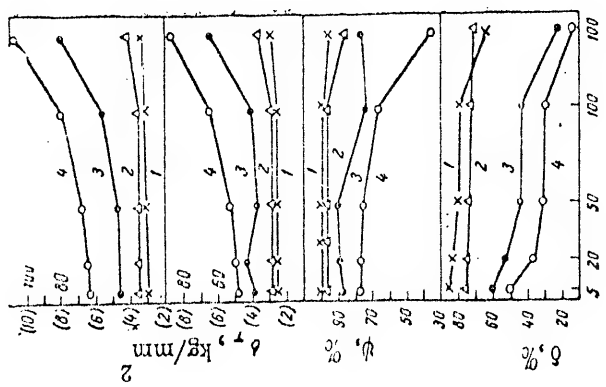

Fig. 1. Mechanical properties of ingots as a function of cooling rate following homogenizing. Tests performed at the following temperatures: 1 – 410°C; 2 – 400°C; 3 – 360°C; 4 – 320°

Card 2/3

ACC NR: AP6036712 SOURCE CODE: UR/0136/66/000/011/0089/0091

AUTHOR: Grishkovets, Ya. G.; Rubin, Yu. L.

ORG: none

TITLE: Effect of ingot cooling rate following homogenizing on the quality of D16-alloy (Al-Cu-Mg) tubes

SOURCE: Tsvetnyye metally, no. 11, 1966, 89-91

TOPIC TAGS: aluminum base alloy, homogenization, metal heat treatment, cooling rate, phase composition, solid mechanical property / D16 Al-Cu-Mg alloy

ABSTRACT: The cooling rate of ingots following their homogenizing is an important aspect of their heat treatment prior to pressworking. In this connection, the authors experimentally performed the homogenizing of ingots of D16 alloy (diameter 160x63 mm) at 500°C at 12 hr and their subsequent cooling to 300°C at the rate of 5, 20, 50 and 100°C/hr as well as by means of water quenching (~100°C/min). The technological properties of the thus treated ingots were evaluated by means of short-time tensile tests at high temperatures. Mechanical tests were performed at 320, 360, 400 and 440°C. Tubes measuring 60x10 and 68x5.5 mm were produced

Card 1/3 UDC: 669.715:620.1

L 1010-67

ACC NR: AP6028586

For A, recrystallization did not occur at 1.04 and 1.85% Mn. For B, partial recrystallization occurred, while for C the entire volume recrystallized. The recrystallization temperatures varied from 320 to 520°C depending on the ingot condition and alloy content. In bars alloyed with 0.05 and 0.21% Zr the greatest degree of recrystallization occurred in ingots which were not heat treated, while for 0.45% Zr it occurred for condition C. The increase in recrystallization temperature with rise in manganese content in cast ingots was caused by supersaturation of the solid solution, as confirmed by lattice parameter and electrical resistivity measurements. Electron microscopy showed partial decomposition of the solid solution after holding alloys with 1.04 and 1.84% Mn at 620°C; the particles were situated along the dendritic boundaries and were about a micron in diameter. The structural inhomogeneity was related to widening of texture maxima on x-ray patterns. The texture maximum contracted with rise in alloying of the solid solution and widened sharply when second phase particles were present in the structure before deformation. It established that heat treatment of Al--Mn ingots lowers the recrystallization temperature, if solid solution decomposition occurs; however, Al-Zr alloys exhibit the opposite behavior. In the first case slow cooling strengthens the effect, while in the second case it weakens it. Orig. art. has: 2 figures, 2 tables.

SUB CODE: 11,13/ SUBM DATE: none/ ORIG REF: 003/ OTH REF: 002

Card 2/2

L 04194-67 EWT(m)/T/EWP(t)/ETI IJP(c) JD/WW/GS/

ACC NR: AP6028586 SOURCE CODE: UR/0129/66/000/008/0027/0031

AUTHOR: Dobatkin, V. I.; Grishkovets, Ya. G.

ORG: none

TITLE: Recrystallization of binary alloys of aluminum with manganese and zirconium

SOURCE: Metallovedeniye i termicheskaya obrabotka metallov, no. 8, 1966, 27-31

TOPIC TAGS: aluminum alloy, manganese, zirconium, recrystallization, cold deformation, structural property, metallographic examination, cast structure, heat treatment, quenching, grain size, electron microscopy

ABSTRACT: The recrystallization behavior of binary aluminum alloys and its dependence on the predeformed ingot structure were studied. Ingot structure was varied by heat treatment, and alloying with manganese and zirconium. Ingots were prepared in three conditions: A--cast, with maximum supersaturation of the solid solution; B--quenched from 620°C; C--slowly cooled at 5 deg/hr. The binary alloy contents ranged from 0.21 to 1.84% Mn and 0.03 to 0.45% Zr. The ingots were deformed to bars of 18 mm diameter and recrystallized. Recrystallization temperatures were determined metallographically and x-ray methods were used to study the texture changes. The recrystallization temperatures were given as a function of manganese and zirconium content for A, B, and C.

UDC: 669.71'72:669.29.296:629.186.5

Card 1/2

ACC NR: AP7000596 (N) SOURCE CODE: UR/0129/66/000/011/0054/0055

AUTHOR: Grishkovets, Ya. G.; Yermanok, M. Z.; Pinskaya, L. I.

ORG: none

TITLE: Mechanical properties of D1 alloy tubes

SOURCE: Metallovedeniya i termicheskaya obrabotka metallov, no. 11, 1966, 54-55

TOPIC TAGS: aluminum alloy tube, aluminum alloy, metal tube, cold drawing, annealing, ~~aluminum alloy tube~~, mechanical property, ~~aluminum alloy tube~~, grain structure/D1 alloy

ABSTRACT: A method for improving the structure and mechanical properties of D1 aluminum alloy tubes has been investigated. Cold-rolled tubes, 55 mm in outside diameter with a wall 2 mm thick, were cold drawn without a mandrel to 54—34 mm in diameter, annealed at 500C for 40 min, quenched, and naturally aged. Depending on the reduction, the tensile strength varied from 36.8 to 43.8 kg/mm^2, the yield strength from 22,3 to 27.2 kg/mm^2, and the elongation from 18 to 23.5%. The minimum strength properties and the largest grain were observed in specimens drawn with 5—12.5% reduction; the strength increased with increasing reduction. Annealing in a saltpeper bath increased the strength by 1.5—3.0 kg/mm^2 and reduced the elongation by 0.5—3.0% as compared to furnace annealing. Annealing with rapid heating high frequency induction improved somewhat the strength properties and structure of cold-drawn tubes. Orig. art. has: 2 figures.

SUB CODE: 11, 13/ SUBM DATE: none/

Card 1/1 UDC: 680.17:669.717

SOV/124-57-3-3652

Translation from: Referativnyy zhurnal. Mekhanika, 1957, Nr 3, p 146 (USSR)

AUTHOR: Grishkova, N. P.

TITLE: Stress Determination in Bridge-support Rollers by the Photoelastic Method (Opredeleniye napryazheniy v katkakh mostovykh opor pri pomoshchi opticheskogo metoda)

PERIODICAL: V sb.: Issledovaniya po vopr. ustoychivosti i prochnosti. Kiyev, AN UkrSSR, 1956, pp 224-229

ABSTRACT: Bibliographic entry

Card 1/1

DINNIK, Aleksandr Nikolayevich, akademik; KUCHEROV, P.S., red.; PEN'KOV, A.M., red.; GRISHKOVA, N.P., prof., red.; ZIL'BAN, M.S., red.izd-va; ZHUKOVSKIY, A.D., tekhn.red.

[Selected works] Izbrannye trudy. Kiev, Izd-vo Akad. nauk USSR. Vol.3. 1956. 307 p. (MIRA 11:3)

1. Chlen-korrespondent AN USSR (for Kucherov, Pen'kov)
(Elasticity)

GRISHKOVA, Nadezhda Petrovna; GEORGIYEVSKAYA, Valentina Vladimirovna; SAVIN, G.N., redaktor; LISENBART, D.K., redaktor; ZHUKOVSKIY, A.D., tekhnicheskiy redaktor

Aleksandr Nikolaevich Dinnik. Kiev, Izd-vo Akademii nauk USSR, 1956. 50 p. (MLRA 9:10)

1. Deystvitel'nyy chlen AN USSR (for Savin)
(Dinnik, Aleksandr Nikolaevich, 1876-1950)

DINNIK, A.N., adademik; GRISHKOVA, N.P., professor, redaktor; KLEMNIKOV, V.M., redaktor; NEVRAYEVA, M.A., tekhnicheskiy redaktor

[Longitudinal bending; torsion] Prodol'nyi izgib. Kruchenie. Moskva, Izd-vo Akad. nauk SSSR, 1955. 392 p. (MLRA 8:7)
(Elastic rods and wires) (Torsion)

DINNIK, Aleksandr Nikolayevich; KUCHEROV,P.S., redaktor; PEN'KOV,A.M., redaktor; GRISHKOVA,N.P., professor, redaktor; ZIL'BAN,M.S., redaktor; SIVACHENKO,Ye.K., tekhnicheskiy redaktor

[Selected works] Izbrannye trudy. Kiev, Izd-vo Akademii nauk Ukrainskoi SSR. Vol.2.[Application of Bessel's functions to problems in the theory of elasticity] Prilozhenie funktsii besselia k zadacham teorii uprugosti. 1955. 220 p. (MLRA 9:3)

1. Chlen-korrespondent AN USSR (for Kucherov, Pen'kov)
(Bessel's functions) (Elasticity)

GRISHKOVA, N. P.

GRISHKOVA, N. P.

GRISHKOVA, N.P., professor; VARVAK, P.M., doktor tekhnicheskikh nauk, retsenzent; KROLEVETS, M.S., kandidat tekhnicheskikh nauk, redaktor.

[Optical method of determining stresses in machine parts] Opticheskii metod opredeleniia napriazhenii v detaliakh mashin. Kiev, Gos. nauchno-tekhn. izd-vo mashinostroit.lit-ry. [Ukr. otd-nie] 1953. 50 p.
(Machinery--Testing) (Strains and stresses) (MLRA 7:7)

ILLEGIBLE

GRISHKOVA, N. P.

36567. O Deformatsiyakh V Tsilindre Pod Deystviyem Prodol'nykh i Poperechnykh sil. Trudy Kiyevsk. Tekhnol. In-ta Pilikatov, T. II, 1949, c.104-07.

SO: Letopis' Zhurnal'nykh Statey, Vol. 50, Moskva, 1949

GRIGHKOVA, N.P., professor; STARKOVSKIY, V.A., kandidat tekhnicheskikh nauk.

Physical and mechanical properties of Donov deposit anthracite as related to its anisotropy. Trudy Inst. gor. dela AN SSSR no.11 117-127 '51. (MLRA 10:8)

(Donets Basin--Anthracite--Testing)

GRISHYCVA, N. T.

33138

Raspredeleniye Napryazheniy U Gornykh Vyra otok Slozhnoy Formy. Doklady Akad. Nauk Ukr. Ssr, 1949, No 4 c. 39-44 - Na Ukr. Yaz. -Rezyume Na Rus. Yaz.

SO: Letopis' Zhurnal'nykh Statey, Vol. 45, Moskva, 1949

KUZ'MIN, Nikolay Nazimovich, comp.; SKISHKOVA, L.A., [illegible]

Heroes of the Soviet Union [Vesnik - Ser. Sovetskoye Soiuza. Moskva, Mezhtrina, 1966. [illegible] p.
(MIRA 19:6)

AZHAZHA, V.G.; VALASHEK, Yu.R.; GRISHKOV, V.V.

Device for remote measurement of salinity, temperature and pressure of sea water ("thermosalinometer-2"). Ryb. prom. no.54:3-33 '60. (MIRA 15:9)

(Oceanographic instruments)

GRIGHKOV, Ivan Grigor'yevich; [illegible], A. [illegible], otv. red.

[Electrification of Soviet Kirgizistan; an historical essay] Elektrifikatsiia Sovetskogo Kirgizstana; istoricheskii ocherk. Frunze, "Ilim," 1965. 120 p.
(MIRA 18:1)

NOVIKOV, V.; MATVEYEV, Ya.[illegible]; [illegible], N.P.; [illegible]; [illegible], G.; KOLOMEY, M.; [illegible]; [illegible]; [illegible]; [illegible]; [illegible], I.N.; RAKHMANOV, I.V.; [illegible]; [illegible]; [illegible]; DELLO, A.A.; SHUMILYA, V.A., Insp.; [illegible], Insp.; GRIBKOV, A.I.; KARBONOV, B.A.; BURDIN, V.M., Kand. tekhn. nauk; [illegible], D.A., Inzh.; MUZALEVSKIY, [illegible]; [illegible]; [illegible]; [illegible]; KOMAROV, A.I.

New developments in [illegible].

[illegible]

GRISHKOV, A.I., kand.tekhn.nauk; KURDIANI, G.I.; NOZADZE, A.E.

Review and bibliography. Stal' 25 no.3:255-256 Mr '65.

(MIRA 18:4)

1. TSentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii imeni I.P.Bardina (for Grishkov). 2. Kutaviskiy metallurgicheskiy zavod i Institut metallurgii Gruzinskoy SSR (for Kurdiani, Nozadze).

L 27434-66 EWT(m)/EWA(d)/T/EWP(t)/ETI/EWP(k) IJP(c) JD/HW

ACC NR: AP6017778 SOURCE CODE: UR/0133/65/000/009/0844/0844

AUTHOR: Grishkov, A. I.; Makeyev, I. F.; Dello, A. A.

ORG: Central Scientific Research Institute of Ferrous Metallurgy im. I. P. Bardin (Tsentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii)

TITLE: Development of technology for rolling heat-resisting steel and alloy sheet made of stainless and acid-resistant steels

SOURCE: Stal', no. 9, 1965, 844

TOPIC TAGS: metal rolling, heat resistant steel, stainless steel, sheet metal, steel, ductility, material deformation, solid mechanical property/KhN67VMTYu steel

ABSTRACT: KhN67VMTYu steel possesses satisfactory ductility in the 950-1180°C range and has increased strength properties (2-4 times more than steel 45) in the same temperature range. Below 1000°C, deformation resistance increases significantly. An appropriate rolling condition with not more than 7% reduction per pass is recommended. Developed and tested was the technique for producing large sheet measuring 8-15X1000X2500-3000 mm made from slabs measuring 120X500X1050 mm (used to equip the "Krasnyy Oktyabr'" Plant) which were rolled into billets on the three-high Layta 2200 Rolling Mill with a single intermediate preheating to (120-> 70-> 25) mm and further on the 1700 Mill (to a 15-mm sheet with one intermediate heating, to a 8-10 mm sheet with two intermediate preheatings). The mechanical properties of the sheet in the supplied condition (after quenching from 1100-1130°C by a water spray) were as follows (minimum): UTS = 100 (980) kg/mm² (Mn/m²); σ_s = 58 (570) kg/mm² (Mn/m²); δ = 18%, ψ = 20%, αK = 5 (0.49) kg/cm² (mj/m²). [JPRS]

SUB CODE: 11, 13, 20 / SUBM DATE: none

Card 1/1

UDC: 621.771.23.001.5

GRISHKOV, A.I., kand. tekhn. nauk

Contact stresses during hot rolling. Stal' 24 no.1:53-56 Ja '64. (MIRA 17:2)

1. TSentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii.

GRISHKOV, A.I., kand.tekhn.nauk; TRET'YAKOV, A.V., kand.tekhn.nauk

Review of A.I.Tselikov's book "Theory of the calculation of forces in rolling mills." Stal' 23 no. 3:256-257 Mr '64. (MIRA 17:5)

1. Tsentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii imeni I.P.Bardina (for Grishkov). 2. Nauchno-issledovatel'skiy konstruktorsko-tekhnologicheskiy institut tyazhelogo mashinostroyeniya Ural'skogo zavoda tyazhelogo mashinostroyeniya imeni Sergo Ordzhonikidze (for Tret'yakov).

ACCESSION NR: AP4019027

ENCLOSURE: 01

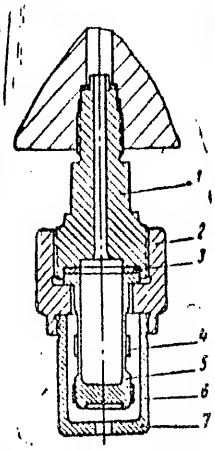

Fig. 1. Sectional view of the pressure indicator.

1. - block; 2. - nut; 3. - gasket; 4. - foil indicator; 5. - cup; 6. - compensating foil indicators; 7. - protective casing.

Card 3/3

ACCESSION NR: AP4019027

cloth. The terminals of the bridge so formed are led to a 4-prong junction on the casing(7). The measurements obtained with this device are quite accurate and the device itself is simple, compact, and stable. It can be used for measuring pressures in various hydraulic mechanisms with working speeds up to 300-400 mm/sec. Orig. art. has: 3 figures.

ASSOCIATION: none

SUBMITTED: 00 DATE ACQ: 27Mar64 ENCL: 01

SUB CODE: MM NO REF SOV: 001 OTHER: 000

Card 2/3

ACCESSION NR: AP4019027 S/0182/64/000/002/0045/0047

AUTHORS: Grishkov, A. I.; Chernov, A. N.; Gulyayev, V. V.

TITLE: Pressure indicator for high speed hydraulic presses

SOURCE: Kuznechno-shtampovochnoye proizvodstvo, no. 2, 1964, 45-47

TOPIC TAGS: hydraulic press, pressure indicator, stamping, manometer, recording manometer, foil indicator

ABSTRACT: A pressure indicator was designed by TsNIIChM for measuring the force applied and the pressing velocity in the 150-ton hydraulic press P664B used for hot stamping of ferrous metals and alloys at up to 300 mm/sec. The working principle of the indicator is based on the variation in the elastic deformation of a thin-walled container under the action of the internal pressure of the liquid inflowing from the main cylinder of the hydraulic press. The pressure indicator (see Fig. 1 of the Enclosure) consisted of a block (1) and a cup (5) with thin elastic walls and a rigid bottom. The cup is attached to (1) by the nut (2). Two foil indicators (4) are fixed to the thin wall and two (6) to the rigid bottom of the cup. All the indicators are lacquered and covered with lacquer-saturated

Card 1/3

GRISHKOV, A.I., kand.tekhn.nauk

Distribution of torque during rolling on a blooming mills. Stal' 23 no.5:443-446 My '63. (MIRA 16:5)

1. TSentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii.

(Rolling (Metalwork)) (Torque)

SMIRNOV, A.I., LONTICNOV, G.L.

Current collecting device in the diagram for the [illegible] screws on blooming mills. Stoma. trud. [illegible] no.2[illegible] [illegible] 1953.

GRISHKOV, A.I.; FEDOROV, Yu.K.; LOKTIONOV, G.I.; IVANOV, G.M.

Investigating the coefficient of resistance to the movement of a strip along the roller table. [Sbor. trud.] BONIICHM no.29:113-120 '63. (MIRA 17:4)

GRISHKOV, A. I.

GRISKOV, A.I. [Grishkov, A.I.], kandidat technickych ved (SSSR).

Research on blooming mills for establishment of parameters of their automation. Hut listy 17 no.4:282-286 Ap '62.

GRISHKOV, A.I.; RIVKIN, A.A.

Forces acting on the bed of a rolling machine. Izv.vys.ucheb. zav.; chern.met. 5 no.4:191-199 '62. (MIRA 15:5)

1. TSentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii.

(Rolling mills)

S/[illegible]/[illegible]/[illegible]
[illegible]/A1[illegible]

At the Tsentral'nyy...

Steel grade	Rail steel	Carbon steel	35ГС (35GS)	60С2 (60S2)	1Х18Н9Т (1Kh18N9T)	Double-layer	[illegible]	[illegible]
Metal pressure on the rolls, t	500-1050	610-1200	600-1200	800-1380	500-1760	[illegible]	-	-
Total rolling moment, tm	97-177	110-235	102-195	100-192	-	[illegible]	[illegible]	[illegible]

The ratio between the rolling moment of the lower and upper rolls varies within a wide range. For rail steel and Ст.3кп (St.3kp) blooms the ratio [illegible] moments on the barrel is 3 in the first 4 - 6 passes, from the fifth pass for the St.3kp blooms and the seventh pass for rail steel in the grooves, it varies between 1.5 and 1.75. The maximum variations in the moment ratios (up to [illegible]) [illegible] rained in rolling EI171 and double layer slabs. In some cases the rolling moment on the upper roll was zero or negative; sometimes it was [illegible] than on the upper. By recording the torques simultaneously on the upper and lower spindles, the pattern of metal pressure on the rolls [illegible]. Tests were also carried out regarding the operation of the [illegible] auxiliary equipment, supplying data of motor load, rolling [illegible], [illegible] of [illegible], etc.

Card 2/2

S/133/62/000/[illegible]/[illegible]/[illegible]
[illegible]

AUTHORS: Muzalevskiy, G. G., Grishkov, A. I.

TITLE: At the Tsentral'nyy nauchno-issledovatel'skiy institut [illegible] metallurgii im. I. P. Bardina (Central Scientific Research Institute of Ferrous Metallurgy im. I. P. Bardin)

PERIODICAL: Stal', no. 6, 1962, 541 - 542

TEXT: The metal pressure on the rolls and the torques on the upper and lower spindles of the 1100 blooming mill were investigated by means of wire converters fixed to the supports of the stand and spindle bodies. A current collector designed by the TsNIIChM recorded for a considerable period the torques on both blooming spindles simultaneously. The oscillographic records were made during the rolling of 144 ingots of 19 steel grades. For some of the grades the following results were obtained:

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Pressures and torques ... S/145/61/000/010/008/008
D221/D304

figures, 2 tables and 4 Soviet-bloc references.

ASSOCIATION: Tsentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii (Central Scientific Research Institute of Ferrous Metallurgy)

Card 4/4

same mark varied by 20-60°; this affected the scatter of readings of mean specific pressure. The ratio of torques of lower and upper rollers varies within wide limits, and this may take place even during the same pass. It was impossible to establish the cause of this difference in the course of experiments. A conclusion, however, can be drawn from the analysis of results and from publications, inferring that the distribution of torques in a reversing two-high mill is related to the dimensions of the rolled strip, mark of steel, state of roller surface, uniformity of heating of ingot, and also depends on the conditions in the transmission between the motor and the rollers. The magnitude and ratio of torques depend on the point of application and the direction of the resultant of pressure. On the basis of experimental data, the angle of inclination of the resultant in respect to the vertical δ which may reach 3α (α is the angle of pinch) was computed. The horizontal stress can attain 8-10% of the total pressure of metal against the rollers which is 80-150 t. The following conclusion was made: The metal deformation takes place during the transient process of rolling, in addition to the above-mentioned points. There are 3

torques were measured with strain gauges, covered with ПКЭ 22 (PKE 22) enamel for protection against dampness. The measuring bridges were connected to a six-channel amplifier and an МПО-2 (MPO-2) oscillograph. The calibrated graphs of stresses in the stands and the torques exhibited a linear characteristic. The Laboratory of Automation of Rolling Equipment at TsNIIChM designed a special current take-off arrangement. The experiments concerned 19 marks of steel including rails. The examinations revealed that torques in the upper and lower rollers are distributed unevenly, and their ratio changes during a single pass. During analysis of the oscillograms, maximum torque points and pressure were considered for calculating the peak loads. The results are tabulated. The torque on the shafts of the blooming mill were assessed by $M_{dr} = \eta M - 0.5\, d\mu P$, where M is the torque in the spindle; dr is the diameter of the roller journal (600 mm); μ is the friction coefficient in the bearings of the rollers, assumed to be 0.02; P is the pressure of metal against the rollers; η is the efficiency coefficient of transmission spindle roller, assumed to be 0.98. The temperature of ingots of the

S/145/61/000/010/008/008
D221/D304

AUTHORS: Grishkov, A. I., Candidate of Technical Sciences and Fedorov, Yu. K., Engineer

TITLE: Pressures and torques during rolling in a blooming mill

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Mashinostroyenie, no. 10, 1961, 191-197

TEXT: An account is given of investigating the pressures of metals on rollers and the torques in spindles of type 1100 blooming mill, which were carried out by Engineers G. M. Ivanov and G. I. Loktionov, Laboratory Worker V. S. Toropov and others. The total pressure on rollers was determined by $P = 2F(\sigma_1 - \sigma_2) \times 10^{-3}$, where the total pressure P is in T; σ_1 and σ_2 are the tensile stresses along the neutral line of stand housing on the side of drive and the side of rollers, in kg/cm^2; F is the cross section of stand in cm^2. The

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SOV/153-59-5-15/31

The Influence of the Velocity of Deformation During Rolling on the Distribution of Specific Pressure

distribution of specific pressure along the arc of bite. There are 3 figures and 13 references, 11 of which are Soviet, 1 English and 1 German.

ASSOCIATIONS: MVTU and TsNIICHM

Card 2/2

SOV/133-59-5-15/31

AUTHORS: Zaroshchinskiy, M.L., Doctor of Technical Sciences, Professor and Grishkov, A.I., Engineer

TITLE: The Influence of the Velocity of Deformation During Rolling on the Distribution of Specific Pressure (Vliyaniye skorosti deformatsii pri prokatke na raspredeleniye udel'nogo davleniya)

PERIODICAL: Stal', 1959, Nr 5, pp 433 - 436 (USSR)

ABSTRACT: The influence of various factors (external friction, external zones and velocity of deformation) on the distribution of specific pressure along the arc of bite and along the width of the strip is discussed. Theoretical considerations are compared with experimental measurements during hot rolling under conditions $l/h_{mean} = 1$ and $l/h_{mean} = 2$. The calculated and experimentally determined curves of the distribution of specific pressure were found to coincide (Figure 3). It is concluded that when the mean height of the rolled strip is approximately equal to the arc of bite the velocity of deformation has the main influence on the

Card1/2

GRISHKOV, A. I.: Master Tech Sci (Diss) -- "Investigation of expansion in hot rolling in smooth rolls". Moscow, 1959. 16 pp (Main Adm of Scientific and Research Organizations of the Gosplan USSR, Central Sci Res Inst of Ferrous Metallurgy), 110 copies (KL, No 10, 1959, 125)

GRISHKOV, A.I., inzh.

Investigating the increase in width in rolling with use of smooth rolls. [Trudy] MVTU no.84:118-171 '58. (MIRA 12:5)
(Rolling (Metalwork))

GRISHKOV, A.I., inzh.

Relation of the average roll pressure to the width of the strip being rolled with smooth rolls. [Trudy] MVTU no.84:172-184 '58. (MIRA 12:5)

(Rolling (Metalwork))

25(1) PHASE I BOOK EXPLOITATION SOV/1888

Moscow. Vysshaye tekhnicheskoye uchilishche

Prokatnyye stany i tekhnologiya prokatki; sbornik statey (Rolling Mills and Processing by Rolling; Collection of Articles) Moscow, Mashgiz, 1958. 206 p. (Series: Its: [Trudy] 84) Errata slip inserted. 3,000 copies printed.

Ed.: A.I. Tselikov, Corresponding Member, USSR Academy of Sciences; Ed. of Publishing House: L.A. Osipova; Tech. Ed.: B.I. Model'; Managing Ed. for Literature on Heavy Machine Building (Mashgiz): S.Ya. Golovin, Engineer.

PURPOSE: This collection of articles is intended for workers of scientific-research institutes and plants, teachers, aspirants, and students specializing in the field of rolling mill engineering.

COVERAGE: This book is composed of theoretical and experimental works and proceedings presented at MVTU imeni Bauman (Moscow Higher Technical School imeni N.Ye. Bauman) by the Department of Machinery and Processes of Rolling and Drawing. It covers the theory of rolling and manufacturing methods described as new. The articles deal with the problem of determining forces in a planetary mill, the study of the process of metal deformation on plain and shaped rolls, continuous cold rolling of pipe, and methods of selecting tools and fixtures for new mills. No personalities are mentioned. References follow each article.

Korolev, A.A., Candidate of Technical Sciences. Consideration of Elastic Flattening of Rolls Along the Contact Arc in Determining Pressure of the Work on Rolls During Rolling 94

The author describes the method of determining the pressure of the work on rolls, with consideration being given to the elastic flattening of rolls.

Zhevoronkov, V.A., Candidate of Technical Sciences, and Ya.A. Zmigrich-Stosha, Engineer. Basic Parameters of the Tools of Mills for Rolling Periodic Shapes 106

The author discusses the basic types of rolls for three-roll periodic shape rolling mills, giving recommendations for selecting wear-resistant material for tools and a graphic method for designing tracers for new mills.

Grishkov, A.I., Engineer. Investigation of Spreading During Rolling in Plain Rolls 118

Grishkov, A.I., Engineer. Dependence of the Average Unit Pressure and the Width of the Strip During Hot Rolling in Plain Rolls 172

In this article and the preceding one the author deals with problems connected with the theory of spreading and derives related equations. He also presents experimental material on the effect of strip width on spreading and average unit pressure, thus confirming the theory of spreading developed by A.I. Tselikov.

Bardin, V.M., Engineer. Cold Rolling of Thin-walled Steel Tubes on a Long Mandrel 185

The author presents the results of an investigation concerned with the cold rolling of tubes on a long mandrel. 16,33, and 38 mm. carbon steel tubes, and 15 and 16 mm. stainless steel tubes with various ratios of diameter to wall thickness were rolled in the same stand, while 16 mm. tubes were rolled continuously in six stands. Pass design is described; reduction regimes for various tube sizes are determined; and the results of an investigation on the selection of material for rolls and mandrels are presented.

137-58-6-12140

Translation from: Referativnyy zhurnal, Metallurgiya 1958 Nr 6 p 137 (USSR)

AUTHOR: Grishkov, A.I.

TITLE: Wire Gages Measure the Distribution of Specific Pressure Along the Arc of Seizure (Zamer raspredeleniya udel'nogo davleniya po duge zakhvata s pomoshch'yu provolochnykh datchikov)

PERIODICAL: V sb.: Prokatn. stany i tekhnol. prokatki (MVTU 80). Moscow, Mashgiz, 1957, pp 119-126

ABSTRACT: A description of the design of dynamometers (D) with wire resistance gages employed for determination of the pressure distribution on the metal along the arc of seizure in the course of hot and cold rolling. Frame- and U-shaped types of D's were tested. The more sensitive and less bulky U-shaped D was found preferable. The experiments were performed on a two-high rolling mill with rolls 180 mm in diameter. D's with two wire gages attached to them were mounted in a transverse groove on the body of a roll. The pressure exerted by the metal being rolled was transmitted to the D's through a pin with a diameter of 1.73 mm positioned in a radial opening in the body of the roll. 1. Metals--Pressure distribution 2. [illegible] 3. Pressure gages--Applications 4. Dynamometers--Design

Card 1/1

137-58-6-12130

Certain Problems of the Theory of the Widening Arising During Rolling (cont.)

Analysis is made of the relationship between the elevationwise mean transverse and longitudinal stresses acting along the boundaries of the nominal zones, this analysis made it possible to make certain deductions on the influence exerted on the W by marginal zones as well as by pull. Equations showing the distribution of the W along the arc of deformation are also derived.

Yu.F.

1. Metals--Processing 2. Metals--Deformation 3. Metals--Theory 4. Metals--Applications

Card 2/2

[illegible]

Translation from Referativnyy zhurnal Metallurgiya, 1956, No. [illegible] (USSR)

AUTHOR Grishkov, A.I.

TITLE Certain Problems of the Theory of the Widening Action in Rolling of Metal in Plain Rolls (Nekotoryye voprosy teorii ushireniya pri prokatke v gladkikh valkakh)

PERIODICAL V sb. Prokatn. stany i tekhnol. prokatki. (MVTU im. [illegible]). Moscow, Mashgiz, 1957, pp 106-118

ABSTRACT By considering the state of stress prevailing along the boundaries of the nominal zones of metal flow during the rolling process (employing the concept of A.I. Tselikov), the following relationship was derived to express the widening (W) as a function of basic factors of the roller process within [illegible] constant [illegible]

$$\Delta b = f(\ldots) = \Delta h_0 \log h_0 / h_1 \ldots f(\Delta b, \ldots) = \Delta h \ldots$$

where Δb is the W, r the radius of the rolls, Δh the reduction, [illegible] the coefficient of friction, h_0 the original thickness of the strip before [illegible], h_n the neutral section thickness, and h_1 the final thickness

Card 1/2

TEREKH, V.M. ; GRISHKO-BOGMENKO, B.K. [Hryshko-Bohmenko, B.K.]

Promising types of walnut in the Botanical Garden of the Ukrainian Academy of Sciences. Trudy Bot. sada AN URSR 7:132-136 '60. (MIRA 14:4)

(Ukraine--Walnut)

GRISHKO, Ya.A.; KASIYANOV, O.N.; KOROLEV, F.K.

How to prevent the breakdown of drills and power packs.
Mashinostroitel' no.7:32-33 Jl '64. (MIRA 17.8)

GEL'PERIN, N.I., prof.; GRISHKO, V.Z., kand.tekhn.nauk

Absorption from gaseous mixtures. Zhur.VKHO 10 no.1:26-33 '65. (MIRA 18:3)

GEL'PERIN, N.I.; GRISHKO, V.Z.

Absorption of CO_2 and H_2S by water solutions of monoethanolamine. Gaz. prom. 6 no.12:46-51 '61. (MIRA 15:2)
(Absorption)
(Carbon dioxide)
(Hydrogen sulfide)

GEL'PERIN, N.I.; GRISHKO, V.Z.

Using injector adsorption apparatus for removing carbon dioxide and hydrogen sulfide from gas mixtures. Gaz. prom. 6 no.6:46-52 '61. (MIRA 14:9)

(Adsorption apparatus) (Gas)

GRISHKO, Vladimir [illegible]

Transactions [illegible]

[Device for preparing [illegible] press; from materials of the Krasnodar Branch [illegible] Construction Research Institute] [illegible] [illegible] Krasnodarskogo filiala [illegible] Moskva, Gosstroyizdat, [illegible]. [illegible] p. [illegible]

1. Moscow. Nauchno-issledovatel'skiy [illegible] mekhanizatsii [illegible]
2. Konstruktor [illegible] Krasnodarskogo filiala [illegible] issledovatel'skiy [illegible] (Grishko). 3. Nauchno-[illegible] nay base Krasnodarskogo filiala [illegible] instituta [illegible]

LIBENKO, V.G., inzh.; PROKOPOV, V.I., inzh.; GRISHKO, V.V., inzh.

Completely mechanized unit for the production of reedwork panels. Stroi.mat. 8 no.7:21-23 Jl '62. (MIRA 15:8)
(Reed products)

GRISHKO, V.I.

Passing of meteorological elements in the Ukraine during the solar eclipse of February 15, 1961. Biul. VAGO no.33: 19-26 '63. (MIRA 16:4)

1. Kiyevskoye otdeleniye Vsesoyuznogo astronomo-geodezicheskogo obshchestva.

(Eclipses, Solar—1961)